



# **Washington State EQ Scenario Catalog**

**E. Washington Hazards Workshop  
October 25, 2011**

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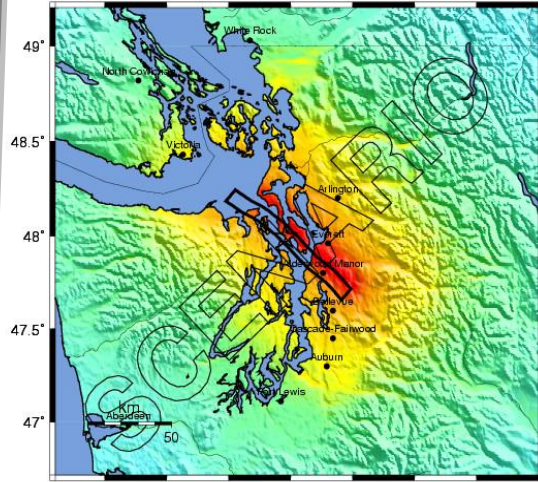
# Why a Scenario Catalog???

## Potential Uses...

- Mitigation Planning – Consistent, authoritative, and up-to-date information
- Response Planning – Credible information to help develop plans
- Exercises & Training - Credible information to test/exercise plans that have been developed and consider modifications based on a variety of scenarios
- Earthquake Response – A virtual “playbook” of possible answers to the question “What just happened?”

# Earthquake Scenario Catalog

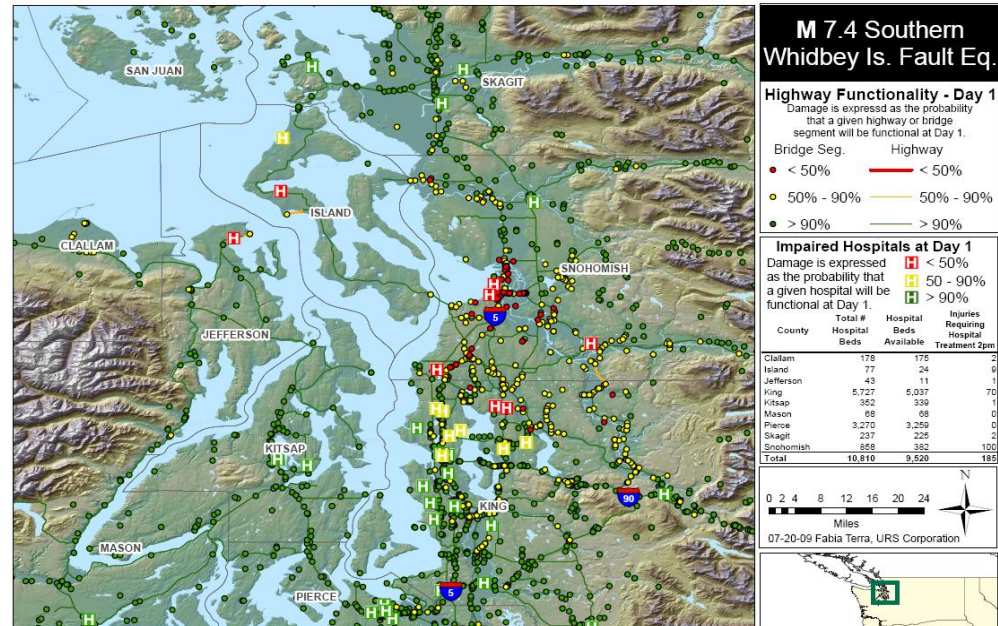
-- Earthquake Planning Scenario --  
ShakeMap for Swif7.4 Scenario  
Scenario Date: APR 27 2009 12:00:00 AM UTC UTC M 7.4 N47.99 W122.55 Depth: 5.0km



PLANNING SCENARIO ONLY -- Map Version 5 Processed Tue Apr 28, 2009 10:52:00 PM MDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC. (g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL. (cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


## Impaired Hospitals (Day 1), Hospital Bed Availability, & Highway Functionality - Earthquake Scenario: Washington



## Suite of Materials Including:

- USGS ShakeMap
- HAZUS (Loss Estimation) Report
  - Statewide & 7 most impacted counties
- Community Vulnerability Report
- Variety of Quick Reference Maps





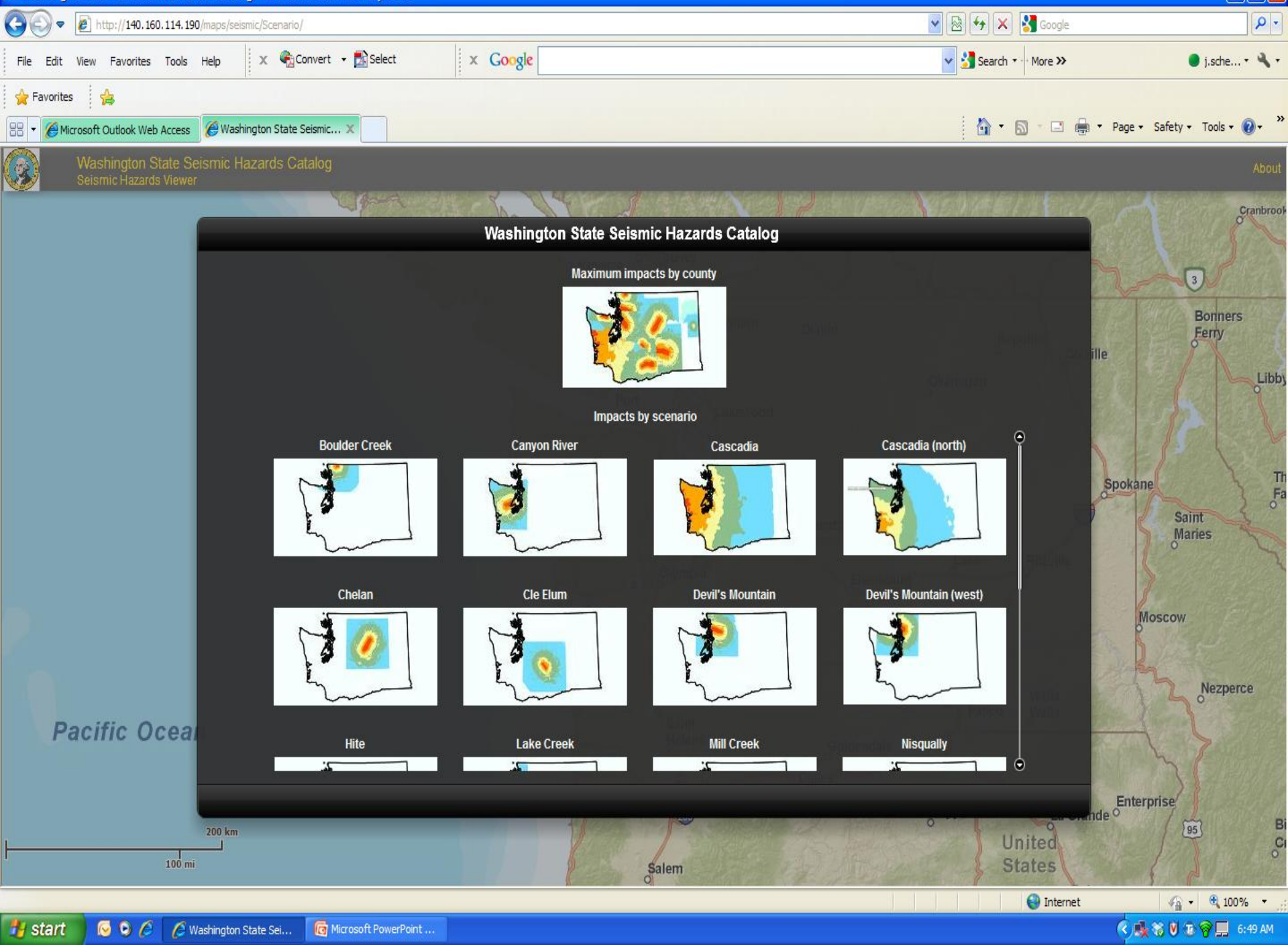
## The 20 scenario earthquakes and their moment magnitudes selected for this study include:

- Boulder Creek fault **M** 6.8;
- Canyon River-Price Lake fault **M** 7.4;
- Cascadia subduction zone megathrust **M** 9.0;
- Cascadia subduction zone megathrust (North section) **M** 8.3;
- Chelan fault **M** 7.2;
- Cle Elum-Wallula deformed zone **M** 6.8;
- Devils Mountain fault **M** 7.1;
- Devils Mountain fault (western section) **M** 7.4;
- Hite fault **M** 6.8;
- Little River fault (Lake Creek) **M** 6.8;
- Toppenish Ridge fault (Mill Creek) **M** 7.1;
- Mount Saint Helens deformed zone **M** 7.0;
- Nisqually intraslab zone **M** 7.2;
- Saddle Mountain fault **M** 7.35;
- Sea-Tac intraslab zone **M** 7.2;
- Seattle **M** 7.2;
- Spokane blind fault **M** 5.5;
- Southern Whidbey Island fault (SWIF) zone **M** 7.4;
- Olympia fault lineament **M** 5.7; and
- Tacoma fault **M** 7.1.

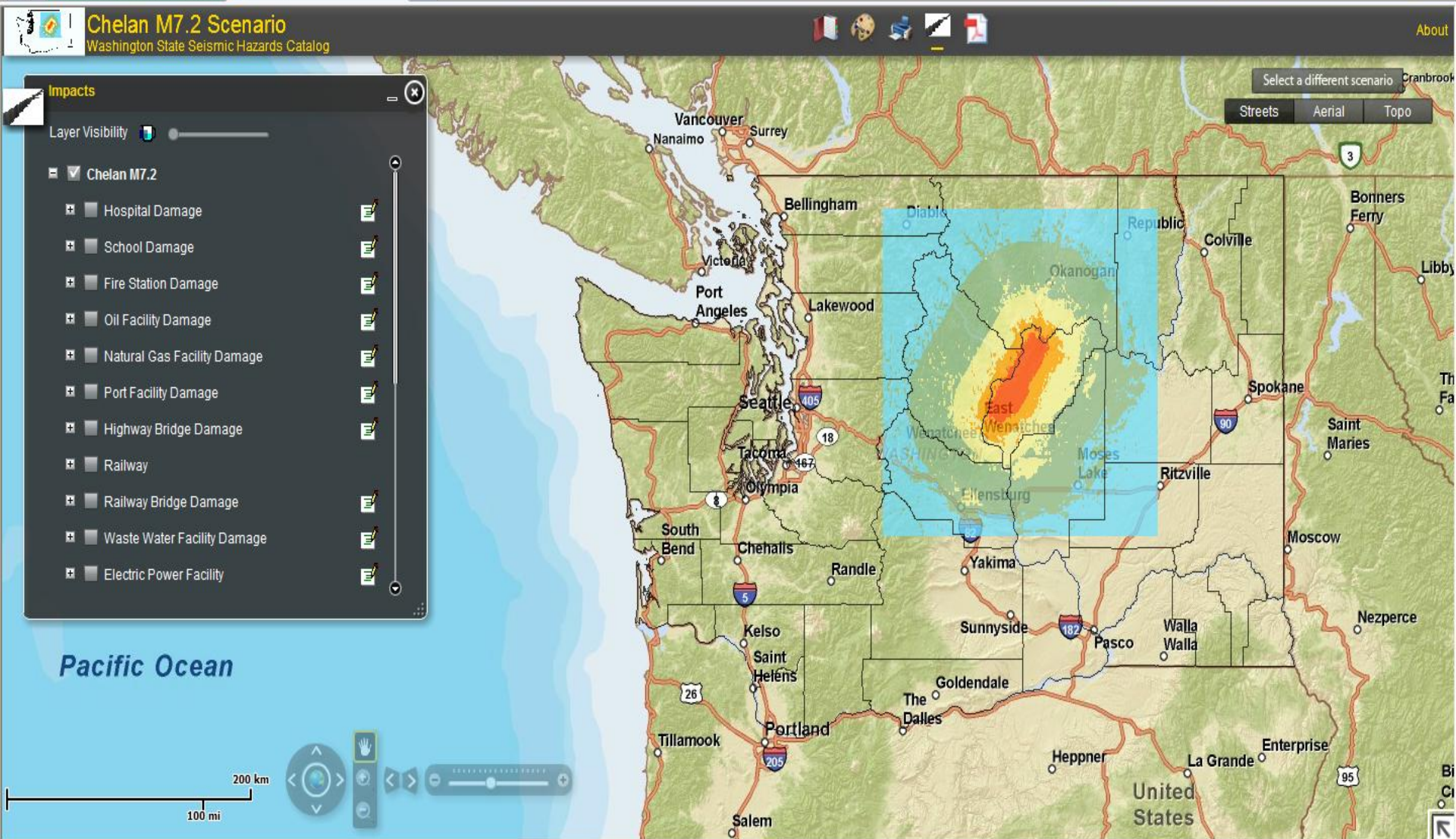
# Online Viewer/Portal

- Still in development...

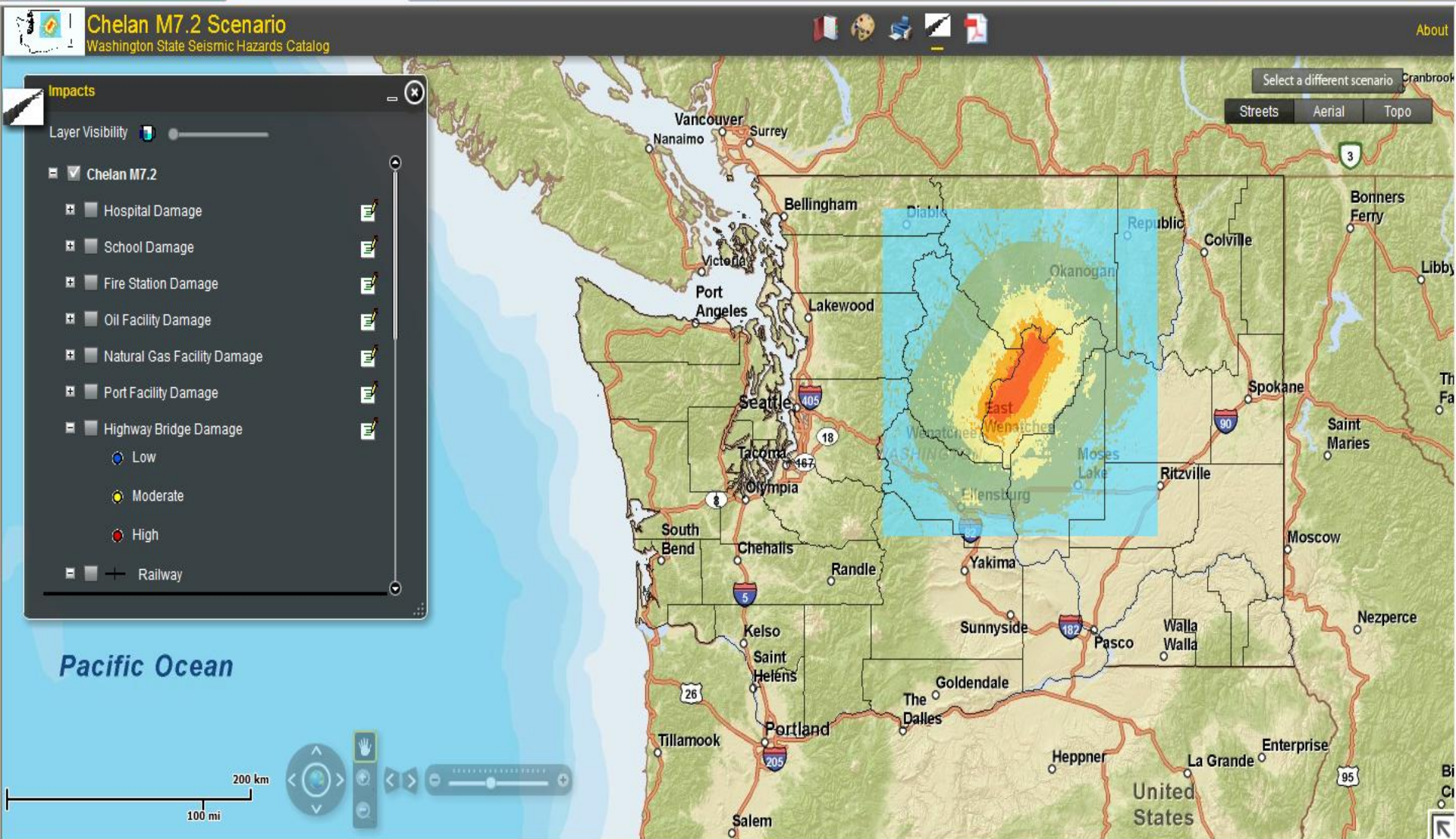
<http://140.160.114.190/maps/seismic/Scenario/>



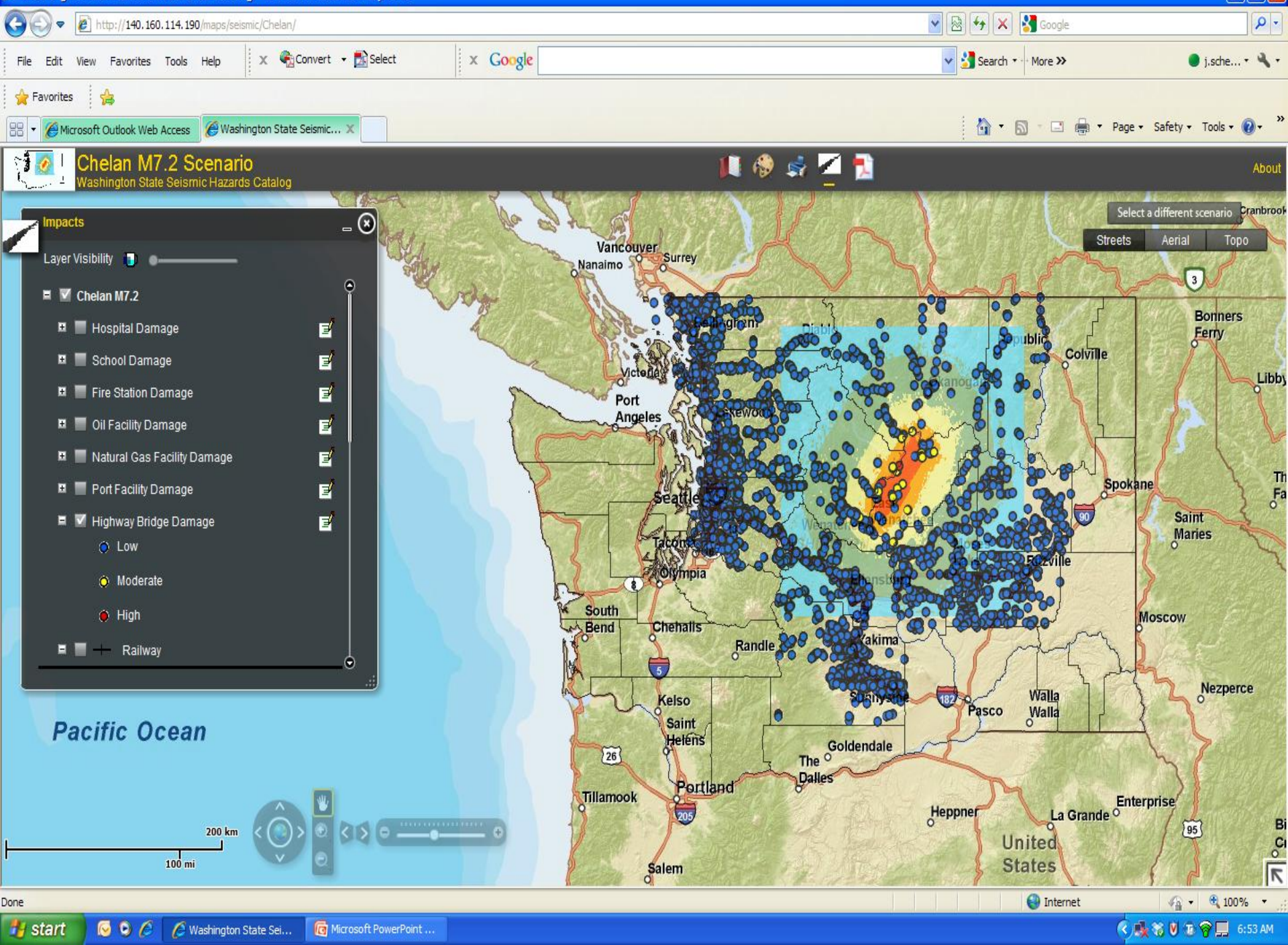




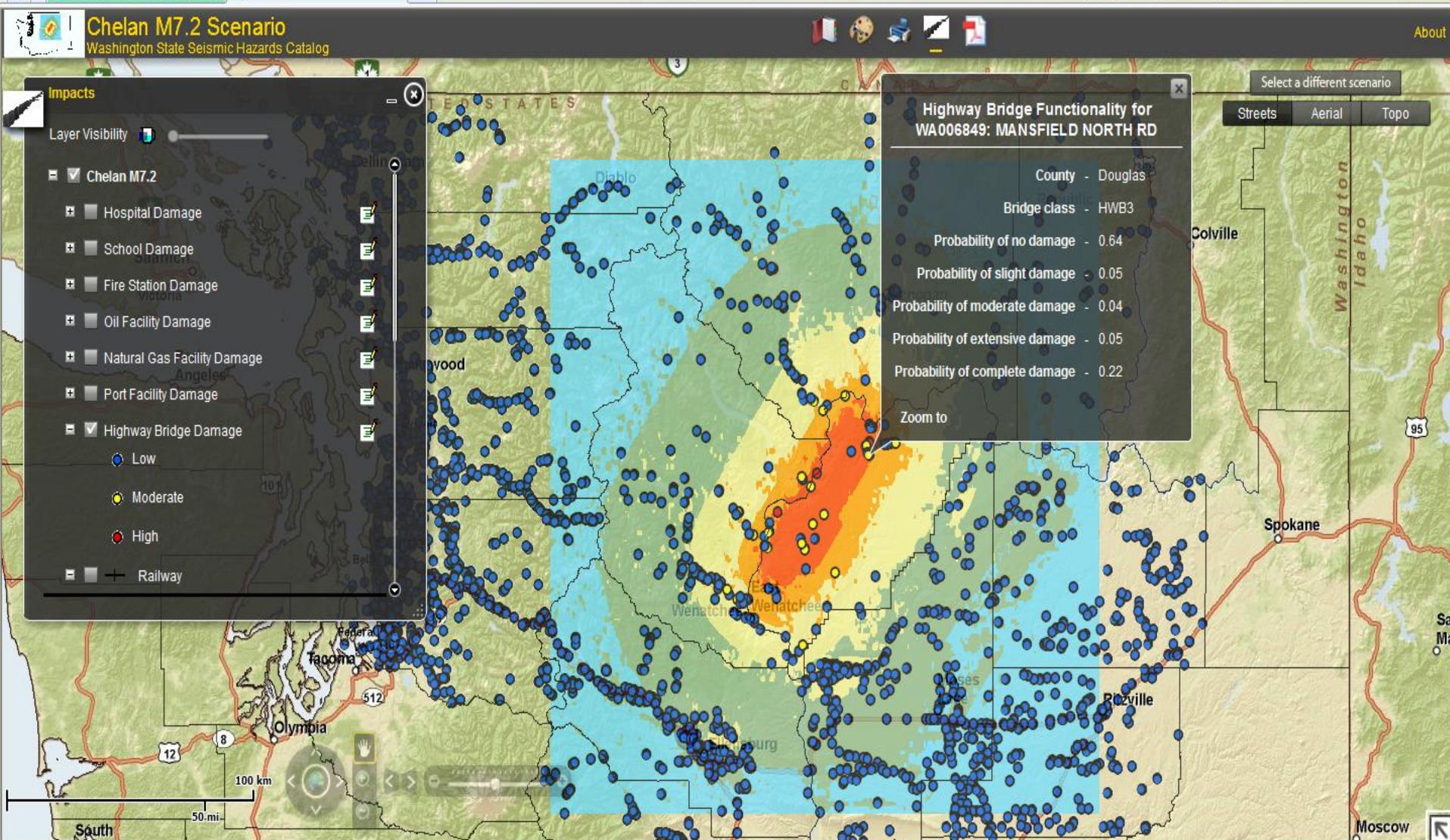




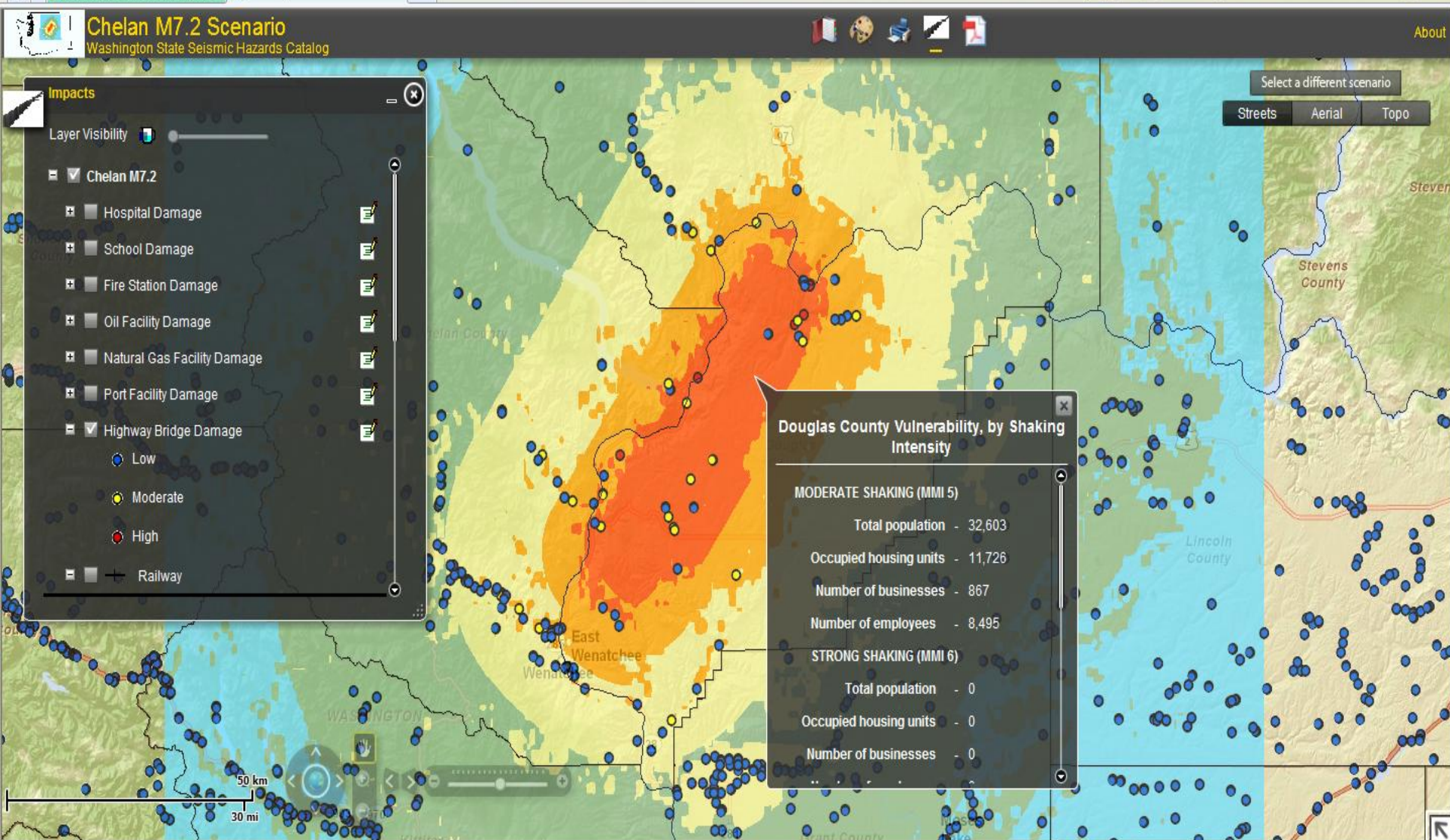




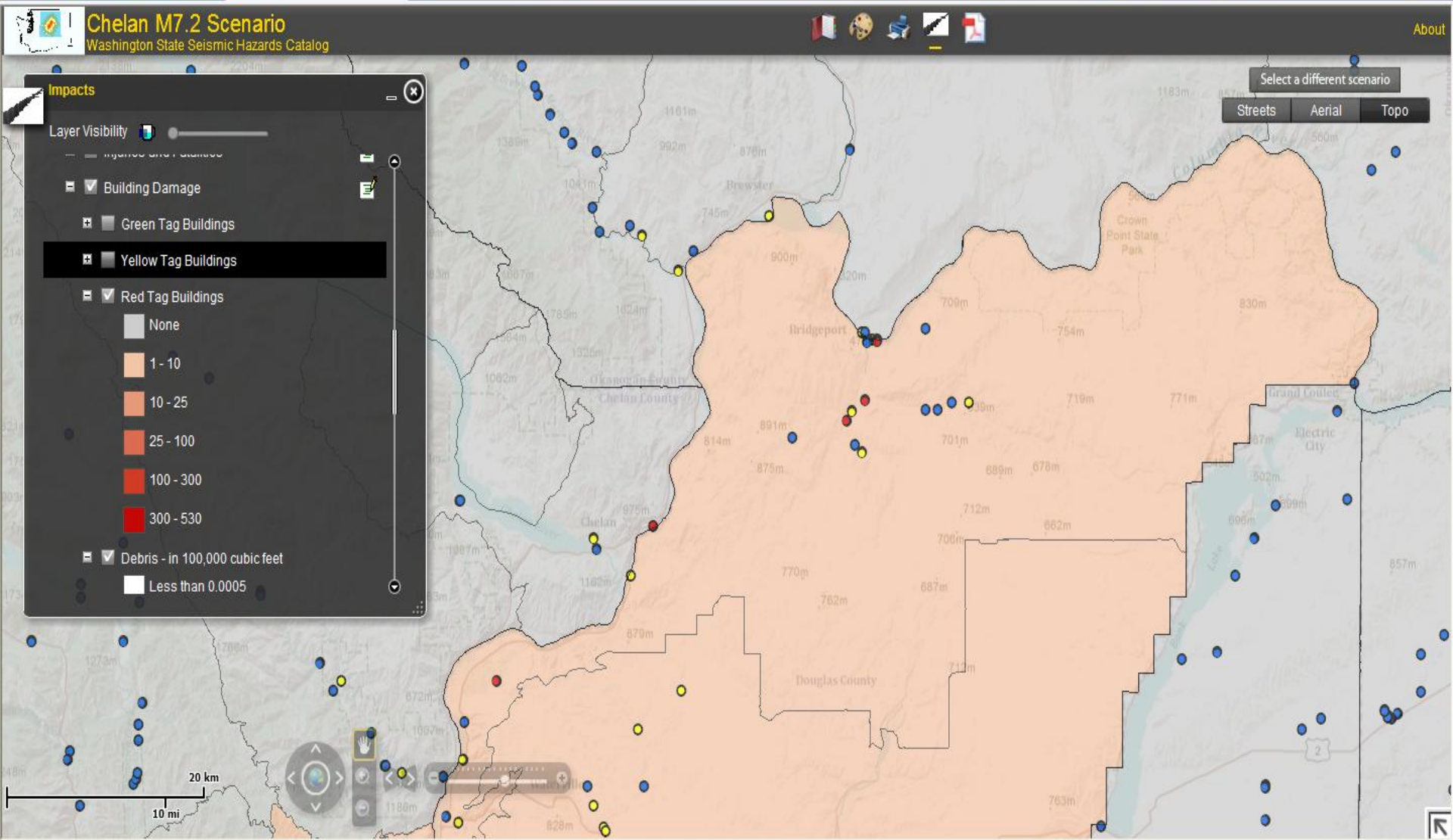














# What's Next?

“If you build it they will come...”

- Resolve hosting/security issues
- Virtual briefings
- Addition of volcano and tsunami data
- Possible inclusion of flood data